

# The Mediating Role of Materialism on the Relationship between Values and Consumption<sup>\*</sup>

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## Abstract

The main aim of this study is to investigate the relationship between values and consumption, and to adduce the mediating roles of materialism in this association. Values have been investigated through Schwartz's main value dimensions in his Theory of Human Values: Self-Enhancement, Self-Transcendence, Openness to Change and Conservation. Through the scope of Homer and Kahle's Value-Attitude-Behavior model, the multiple relations and nomological network between the variables of individual values, materialism, and shopping were investigated. The study was conducted on 485 participants [314 females, 171 males], whose ages ranged between 18 and 66. The data was gathered through the administration of surveys including a demographic information form, Schwartz's Portrait Values Questionnaire, the Materialism Scale and the Consumption Habits Survey. In order to test the hypotheses, partial correlation analyses and hierarchical linear mediated regression analyses were used as statistical methods. The results showed that shopping frequency is positively related to Self Enhancement, while its associations with Self-Transcendence and Conservation were negative. In the analyses conducted to reveal the mediating role of materialism between the values of Self-Enhancement, Self-Transcendence and Conservation with frequency of shopping, it was found that when materialism was entered into the regression equation, the standardized regression coefficients of the values became insignificant, showing that materialism fully mediated the relationship between values and the frequency of shopping.

## Keywords

Consumption, Portrait Values, Materialism, Value-Attitude-Behavior Model.

Consumption has become a key element of both our personal and social lives with the fact that seeing, being seen and being noticed have come into prominence in our day (Bilgin, 2009). Therefore, studies on consumption in human life and the processes behind the behavior of consumption are becoming more important and common every day. In the broadest sense, consumption is the use of products and services by human beings with

the purpose of meeting their needs and desires (Karalar, 2008). Consumer behavior has been a subject studied frequently in the field of social psychology as it plays an important part in the shaping of an individual's social life and it is affected by both individual and social factors. The main purpose of the present study is shaped within the framework of the relationship among individual values, materialism and consumption.

<sup>\*</sup> This study is adapted from an MA thesis under the advisory of Assoc. Prof. Sevim Cesur in Istanbul University's Psychology Department which was presented on 07/12/2012.

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Shopping behavior is defined as a way of meeting individual needs in the most basic terms. However, basic needs are not considered adequate on its own in terms of understanding the processes behind shopping in modern society. This is because when an object of consumption represents a social category, it also indicates the values and principles that define this category (Bilgin, 2009). The concepts of values, which are considered to be the determiner of attitude towards social behavior (Rokeach, 1973), and social behaviors cannot be viewed separately from consumption, which is an essential activity of daily life.

The most common definition of values is that they are learned beliefs regarding the preferred behaviors in society (Schwartz, 1996). In addition, Schwartz (1994) states that values are beliefs related to emotions, and are the targets that motivate and guide behaviors in accordance with their level of importance.

According to the analyses conducted on the data collected from samples coming from 20 countries, Schwartz (1992) found that 10 predetermined values presented not an independent and classified structure, but a holistic and motivational structure. According to Schwartz and Sagie (2000), values are inter-related and interactively they constitute an upper value type.

Four value dimensions exist on two dimensions in the structure of value types. The first of these two dimensions is "Openness to Change and Conservation" and the second is "Self-Enhancement and Self-Transcendence". Ten different value types that these dimensions consist of are Power, Achievement, Conformity, Hedonism, Tradition, Self-Direction, Security, Universalism, Stimulation, and Benevolence (Kuşdil & Kağıtçıbaşı, 2000).

The value dimension of "Openness to Change" includes the value types of Self-Direction, Hedonism, and Stimulation; while the value dimension of "Conservation" includes Security, Conformity, and Tradition value types. The value dimension of "Self-Transcendence" includes the value types of Universalism and Benevolence. The value dimension of "Self-Enhancement" includes Power, Achievement and Hedonism value types. Hedonism is represented in the value dimensions of both "Openness to Change" and "Self-Enhancement" (Schwartz, 1994). The values in the dimension of "Self-Enhancement" are values that enable individuals to behave according to their own interests without considering the interests of others, even when that causes others to have a disadvantage. The values in the dimension of

"Self-Transcendence" consist of values related to the benefit of humanity and nature. The values in the dimension of "Openness to Change" are comprised of values that motivate individuals to follow "uncertain and unpredictable intellectual and emotional interests" (such as being creative or brave). The value types in the dimension of "Conservation" consist of values that enable the continuity of the relationship of individuals with their families, friends or institutions and traditions (Schwartz, 1992).

These value types are structured in a cycle in which they are placed according to their motivational orientation. The main hypothesis of Schwartz is that there is no contradiction between a value type and the next value type that comes after it (Schwartz et al., 2001). Value dimensions and value types that form these structures are presented in Figure 1.

Among the different value types, power and achievement emphasize superiority; both achievement and hedonism are values intended for individualism. Values placed opposite each other express contradictory values. As achievement values can be contradictory with benevolence values so can values in the openness to change group oppose those in the conservation group, such as stimulation opposing tradition (Schwartz et al., 2001).

There are many researches that present the relationship between values and behavior directly and indirectly (through attitudes) (Beatty, Kahle, & Homer, 1991; Cai & Shannon 2012; Milfont, Duckitt, & Wagner, 2010; Şener & Hazer, 2007; Tan, 2011; Thøgersen & Ölander, 2002; Ünal & Erciş, 2006) as well as researches which found that values affect individual behavior directly or indirectly (Beatty et al., 1991; Cai & Shannon, 2012; Milfont et al., 2010; Şener & Hazer, 2007; Tan, 2011; Thøgersen & Ölander, 2002).

The general view in the literature is that the causal relationship between values and behaviors begins with values and ends with behaviors. Vinson, Scott, and Lamont (1977) claim that individual features are shaped on a basis of values and a change of values plays an important part in changing one's attitudes and behaviors. It is claimed that values motivate individuals to find objects that give them an expected benefit that fits their own values, hence affecting consumer behavior (Devrani, 2010). It is especially emphasized that values which have a priority in a culture play an important part in determining the motives for consumption (Howard & Sheth, 1969).

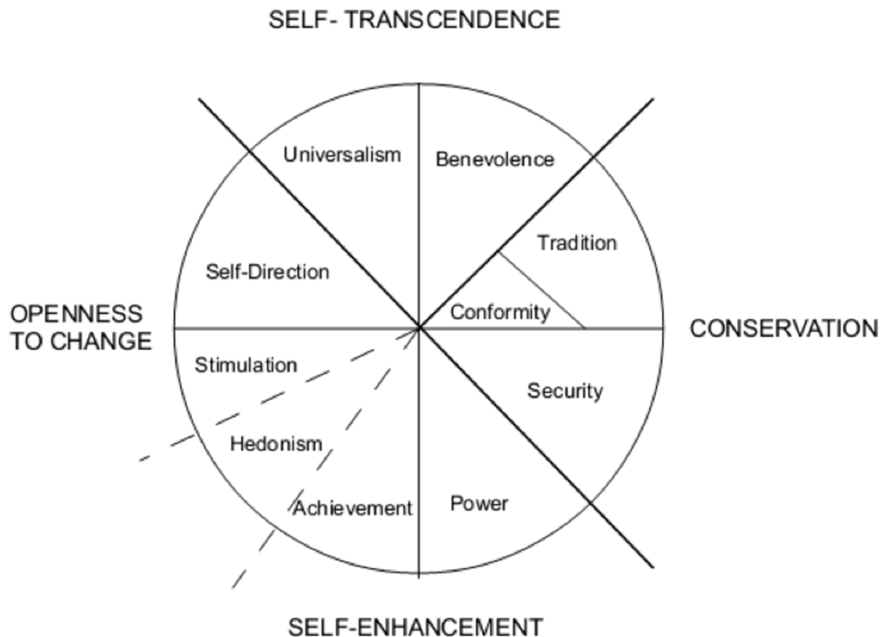


Figure 1: Relations between value dimensions and value types that form the dimensions in the Values theory (Schwartz, 1994, p. 24).

It cannot be claimed that all values are of equal importance in affecting behavior. The most commonly encountered subject among research on the relationship between values and behavior which provided consistent findings is sustainable (environmentalist) behaviors of consumption. It is stated that sustainable consumption is a field in which the effect of values on behaviors can be presented more clearly. Previous studies have revealed that the dimensional values of self-enhancement and self-transcendence, especially universal value types, affect one's behavior of consumption (Thøgersen & Ölander, 2002). In parallel with these findings, another study conducted in Turkey on the relationship between values (the dimensions of self-transcendence and self-enhancement) and environmentalist behaviors of consumption, found that there is a positive correlation between universalism and values of benevolence with sustainable behaviors of consumption (Şener & Hazer, 2007). Considering that self-enhancement, a value related to personal interests, is in a positive interaction with consumptive behavior, it is understandable that the value of self-transcendence, which is placed opposite it and involves values such as benevolence and universalism, motivates individuals to protect the benefit of all humanity and the environment, and therefore consume "less."

Materialism is a concept that is closely related to consumption and values. When it is defined in the framework of consumption, materialism is related to the desire of consumers to possess as well as their dependence on materials (Ger & Belk, 1996). From different perspectives; materialism is approached by various researchers as a personality structure (Belk, 1985), a value (Richins & Dawson, 1992), and an attitude (Kilbourne, Grunhagen, & Foley, 2005). There are various opinions about which is the most suitable definition, but Kilbourne et al. (2005) stated that the materialism scale developed by Richins and Dawson (1992) is convenient for handling materialism both as a value and an attitude. The present study approaches materialism as an attitude towards consumption in accordance with the conceptual framework.

Researchers who claim that materialism should be dealt with not as a value and a personality feature, but as an attitude developed towards consumption (Kilbourne et al., 2005; Moschis & Churchill, 1978) found that values have predictive effects on materialism, and for this reason they asserted that materialism should be dealt with as an attitude towards consumption instead of a value.

Richins and Dawson (1992) defined materialism as an individual value that places importance

on physical assets and classified it under three sub-headings: centrality, happiness, and success. Centrality refers to one's tendency to place assets in the center of their lives; success refers to whether the quality and quantity of assets are perceived as an indicator of achievement; and happiness is defined as the tendency to believe that physical assets are the main source of happiness.

Previous studies on materialism and values confirm that these two concepts are closely related (Burroughs & Rindfleisch, 2002; Kilbourne et al., 2005; Richins & Dawson, 1992). Burroughs and Rindfleisch (2002) found that there is a negative correlation between materialism and collective oriented values such as benevolence, universalism and conformity, as well as a positive correlation between materialism and values oriented towards individuality. Another study on the relationship between materialism and values conducted by Kilbourne et al. (2005) in Canada, Germany and USA found that there is a negative correlation between materialistic attitudes and self-transcendence, and a positive correlation with self-enhancement. They stated that the value of self-enhancement is an especially strong predictor for materialism. Considering that the values in the dimension of self-enhancement are values such as success, wealth and a prosperous society, which emphasize consumption as an indicator of success, its strong connection with materialism is not surprising.

Examination of the relationship between materialism and frequency of shopping is another focal point of the present research. Many previous studies on materialism and consumption focus on the behaviors of consumption. Studies conducted on this subject found that materialism has a negative effect on the protection of the environment because it increases consumption (Kilbourne & Pickett, 2008; Karalar & Kiraci, 2010; Purutçuğlu, 2008; Şener & Hazer, 2007).

Homer and Kahle (1988) developed an extensive theory and brought a new dimension into these studies, especially on the relationship between consumer behavior and values. They examined the multiple relationships between values, attitudes and behaviors and developed a new model in order to present the hierarchy between these concepts. When values are compared to attitudes, they are more continuous and "unchanging", and therefore it is claimed that they should be at a higher rank than attitudes (Rokeach, 1973; Schwartz, 1994). In parallel, Homer and Kahle (1988), asserted that as

a more abstract concept, values can affect attitudes, which are a less abstract concept, and attitudes can enable the occurrence of specific behaviors. With their Value-Attitude-Behavior Hierarchy Model, Homer and Kahle confirmed that values (intrinsic and extrinsic values) affect the attitudes towards natural food; and attitudes affect the behavior of purchasing natural food (Homer & Kahle, 1988). In other words, this model showed that attitudes can play a mediating role between values that have more abstract characteristics and those with specific behaviors. It was stated that the direct effect of values on the behavior of purchasing natural food is lower than its affect through attitudes (Homer & Kahle, 1988).

Some researches that have confirmed the Value-Attitude-Behavior model examined the subject of purchasing environmental products (Tan, 2011), environmentally friendly behavior (Milfont et al., 2010), use of shopping malls (Cai & Shannon, 2012), online shopping (Jayawardhena, 2004), and the behavior of buying presents (Beatty et al., 1991).

In this context, the main framework of the present study is shaped by making use of this model to explain whether materialism plays a mediating variable role in the relationship between values and shopping habits. In the present study, which is shaped in accordance with the research findings and conceptual framework mentioned above, it is predicted that there is a significant relationship between value dimensions and shopping frequency (positive correlation with self-enhancement and openness to change value dimensions; and negative correlation with self-transcendence and conservation value dimensions). In addition, it is predicted that materialism plays a mediating role in the predictor effect of value dimensions on shopping behavior.

## Method

### Study Group

The present research is a field study conducted on volunteer participants who are thought to represent the literate people, age 18 and over, living in Turkey. During the data collection process via a snowball sampling method, 501 survey forms were collected. Forms with missing data were removed, and evaluation and analyses were conducted on data obtained from 485 (314 female, 171 male) participants. The ages of the participants ranged between 18-65 (41.2% of the participants are in the 18-25 age group, 34.6% in the 26-35 age group,

24.1% in the 36-65 age group). The average age of female participants was 28.77 ( $SS = 8.93$ ); and the average age of male participants was 31.95 ( $SS = 8.94$ ). Frequency and percentage distributions of the participants in terms of gender, education, income and work status can be seen in Table 1.

Table 1  
*Frequency and Percentage Distributions of the Participants in terms of Gender, Education, Income, Working and Marital Status*

	Frequency	Percentage
Gender		
Female	314	(64.7%)
Male	171	(35.3%)
Educational Status		
Primary School	22	(4.6%)
High School	29	(6%)
Undergraduate	122	(25.2%)
Graduate	148	(30.5%)
Graduate Student	124	(25.5%)
Post-graduate	40	(8.3%)
Personal Income		
1000TL or less	172	(35.5%)
1000TL-2400TL	204	(42%)
2400TL-3800TL	68	(14%)
3800TL or more	41	(8.5%)
Family Income		
1000TL or less	26	(5.4%)
1000TL-2400TL	173	(35.7%)
2400TL-3800TL	117	(24.1%)
3800TL or more	169	(34.8%)
Working Status		
Working	304	(62.7%)
Non-working	181	(37.3%)
Marital Status		
Single	310	(63.9%)
Married	168	(34.6%)
Other	7	(1.4%)

### Data Collection Tools

**Demographic Information Form:** The Demographic Information Form was developed by the researcher in order to collect data on the age, gender, personal income, family income, educational status, occupation, marital status and working status of the participants.

**Portrait Values Questionnaire:** The Portrait Values Questionnaire (PVQ) was developed by Schwartz et al. (2001) and adapted to Turkish by Demirutku (2007), who also conducted validity

and reliability studies. The questionnaire consists of 40 items and is aimed to determine the value dimensions of the participants by revealing their value tendencies. Each item in the questionnaire defines an individual with two sentences which indicate one value. Participants were asked to state how similar they are to the individual defined in the items. The answers were given on a 6 level Likert type scale as 1-not like me at all, 2-not like me, 3-a little like me, 4- some-what like me, 5-like me, 6-very much like me.

The PVQ deals with values on two dimensions, the first being the Openness to Change and Conservation dimension and the second being the dimension of Self-Enhancement and Self-Transcendence. The ten different value types making up these dimensions are Power, Achievement, Conformity, Hedonism, Tradition, Self-Direction, Security, Universalism, Stimulation and Benevolence. The value dimension of Openness to Change involves the values of "Self-Direction" and "Stimulation," and the value dimension of Conservation includes the values of "Security," "Conformity," and "Tradition." The value dimension of Self-Transcendence includes the values of "Universalism" and "Benevolence," and the value dimension of Self-Enhancement involves the values of "Power," "Achievement," and "Hedonism." The value type "Hedonism" is represented in the value dimensions of both Openness to Change and Self-Enhancement (Schwartz et al., 2001).

Reliability coefficients of value types calculated by Schwartz et al. (2001) are as follows: power, .84; security, .88; conformity, .86; tradition, .81; benevolence, .82; universalism, .83; self-direction, .66; stimulation, .74; hedonism, .84; and achievement, .83.

During adaptation of the PVQ to Turkish (Demirutku & Sümer, 2010), the correlations between 40 items were re-examined and a circular structure was obtained that overlaps to a large extent with Schwartz's Values Theory (1992). It was stated that the structure in the study did not differentiate from the theoretical model at a significant level and that the small variations were consistent with variations in previous studies.

Cronbach alpha coefficients of the value types obtained in this study were as follows: power, .65; achievement, .74; hedonism, .77; stimulation, .59; self-direction, .57; universalism, .72; benevolence, .64; tradition, .59; conformity, .71; and security, .69.

In the analyses of the present study, the scores obtained from the PVQ value dimensions were

used. Cronbach alpha coefficients obtained according to value dimensions were as follows: self-transcendence, .77; self-enhancement, .75; openness to change, .71; conservation, .84.

**Materialism Scale (MS):** The purpose of the employment of this scale, which was developed by Richins and Dawson (1992), was to measure materialistic attitudes. Materialism is defined as an individual value that involves the consideration of physical assets as important and is examined in three parts: centrality, happiness, and success. "Centrality" refers to one's tendency to place assets in the center of their lives, "success" refers to whether the quality and quantity of assets are perceived as an indicator of achievement and "happiness" is defined as the tendency to believe that physical assets are the main source of happiness (Richins & Dawson, 1992). The first six items in the scale are related to Success, items 7 through 14 are related to Centrality, and the last five items are related to Happiness. On the 18-item, 5-level Likert type scale, the participants were asked to choose from 1-Don't agree at all, 2-Don't agree, 3-Undecided, 4-Agree, or 5-Totally agree.

In the original study, The Cronbach alpha coefficients of the MS ranged between .71 and .75 for centrality, .74 and .78 for success, and .73 and .83 for happiness. The Cronbach alpha coefficients of the whole scale ranged between .80 and .88 (Richins & Dawson, 1992).

Reliability and validity studies of this scale were conducted by Turan (2007) in Turkey. In order to determine the reliability of the Turkish adaptation of the MS, the Cronbach alpha coefficients of success, centrality, and happiness sub-scales were calculated separately. The Cronbach alpha coefficients of the sub-scales are respectively .77, .74, and .72. The internal consistency coefficient for all items in the scale was calculated as .84. These reliability values were close enough to the reliability values of the scale in the original language as to be considered at an acceptable level (Turan, 2007).

Cronbach alpha coefficients of the MS obtained in the present study are .78 for all items, .70 for centrality, .42 for success, and .72 for happiness.

**Consumption Habits Questionnaire:** This questionnaire was developed by the researcher in order to determine the consumption habits of the participants. Previous researches (Oğuz, 2008; Purutçuoğlu, 2008) were utilized while creating the questions related to shopping frequency.

The section on shopping frequency consists of thirteen items. The participants were provided

with options on various places (shopping malls, clothing shops, boutiques, district bazaars, online stores, health and beauty shops, electronic stores, furniture stores, home textile shops, bookstores, gift shops, supermarkets, and restaurants) and were asked to define how frequently they shop in each of these places by choosing among the options 1-not at all, 2-several times a year, 3-several times a month, 4-several times a week, and 5-every day. By adding the scores which ranged from 1 to 5, the total shopping frequency score was obtained for each participant.

### Procedure and Data Analysis

Participation in the research was on a voluntary basis. The questionnaire forms used in the research were conveyed to participants via e-mails, various online social media networks, and distribution by hand. Participants were selected through the snowball sampling method. 501 of the distributed questionnaire forms were returned, and forms with imperfect data were removed. Analyses were conducted on the data collected from 485 participants.

While calculating the value types scores in the Portrait Values Questionnaire used in the present research, in order to eliminate the culture-specific and individual answering bias, centralizing was conducted on the value types scores, considering the method suggested by Smith and Schwartz (1997) and Kuşdil and Kağıtçıbaşı (2000). According to this method, scores for each value type are subtracted from the total score of the 40-item scale and standardized. Correlations between variables are calculated using the Partial Correlation Test. In order to test the effects of materialism and value dimensions on the relationship between value dimensions and shopping frequency, Hierarchical Linear Mediated Regression Analysis was used following the methods suggested by Baron and Kenny (1986). SPSS 18.0 statistics packaged software was used for all analyses.

### Findings

In the present research, first the participants' score averages from the PVQ value types and dimensions, Materialism Scale and Consumption Habits Questionnaire were examined. Descriptive data related to these scores are presented in Table 2.

**Table 2**  
Number of Participants, Participants' Average Scores, Standard Variation, Minimum and Maximum Values Related to PVQ Value Types, and Value Dimensions, Materialism Scores and Shopping Frequency

	N	X	SS	Min.	Max.
Power	485	3.48	1.08	1	6
Achievement	485	4.18	1.04	1	6
Hedonism	485	4.50	1.07	1	6
Stimulation	485	4.25	.96	1	6
Self-Direction	485	5.00	.73	2	6
Universalism	485	5.13	.68	2.67	6
Benevolence	485	4.86	.78	1	6
Tradition	485	4.10	.96	1.25	6
Conformity	485	4.54	.95	1.5	6
Self-Enhancement	485	12.15	2.47	5.25	18
Self-Transcendence	485	9.98	1.25	5.42	12
Conservation	485	13.35	2.37	5.90	18
Openness to Change	485	13.74	2.16	5.50	18
Materialism	485	45.23	9.95	18	76
Shopping Frequency	485	31.56	5.34	13	52

As can be observed in Table 2, the order of the highest three average values in the whole sample are respectively Universalism, Self-Direction and Benevolence; and the value types with the lowest averages are Power, Tradition, and Achievement, respectively.

### Values and Shopping Frequency Relation

In accordance with the purpose of the research, first partial correlation analyses were conducted on the independent, mediator, and dependent variables of the research in order to conduct the Hierarchical Linear Mediated Regression Analysis. According to the correlation analysis results conducted on shopping frequency which is the dependent variable of the present research by controlling the related variables of age, gender and family income; significant correlations between shopping frequency and the three value dimensions were found. Accordingly, shopping frequency is positively correlated with the dimensional value of self-enhancement ( $r = 0.16, p < 0.001$ ), and negatively correlated with the dimensional values of self-transcendence and conservation (respectively,  $r = -0.12, p < 0.01$ ;  $r = -0.10, p < 0.05$ ). On the other hand, no significant correlation was detected between the dimensional value of openness to change and shopping frequency. According to the findings, the predicted hypotheses between values and shopping frequency were confirmed for three value dimensions.

**Table 3**  
Correlation Coefficients of the Dependent, Independent and Mediator Variables Conducted by Controlling the Demographic Variables related to Shopping Frequency

	2	3	4	5	6
1- Self-Enhancement /PVQ	-.58***	-.30***	.33***	.46***	.16***
2- Self-Transcendence /PVQ	-	.01	-.09*	-.37***	-.12**
3-Conservation /PVQ	-	-.17***	-.09*	-.10*	
4- Openness to Change/PVQ			-	-.03	.04
5- Materialism				-	.22***
6- Shopping Frequency					-

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p > 0.001$ , PVQ for "Portrait Values Questionnaire"

### The Mediating Role of Materialism in the Relationship between Values and Shopping Behavior

One of the main purposes of the present study is to examine the mediating effect of materialism on the relationship between the value dimensions and shopping frequency. In accordance with this purpose, the method suggested by Baron and Kenny (1986) was used while examining the role of a projected mediator variable.

In this context, in order to examine the mediating role of materialism on the relationship between value dimensions and shopping frequency, the significance of the correlation between the independent variable (Value Dimensions Scores obtained from Portrait Values Questionnaire) and the dependent variable (Shopping Frequency) and then the significance of the correlation between the independent variable and mediator variable (Total score obtained from the Materialism Scale) were first examined. Thirdly, regression analysis was conducted on the mediator variable and dependent variable and it was then examined whether there was a significant correlation between the two variables. After confirming the significance of all correlations, the effect of the independent variable on the model and the significance level of this effect when both mediator and independent variables are involved were examined.

In accordance with the second hypothesis, Hierarchical Linear Mediated Regression Analysis was conducted using three value dimensions (self-enhancement, self-transcendence, conservation) that met the above mentioned Baron and Kenny



Table 4  
PDA Hierarchical Linear Mediated Regression Analysis Results on the Predictor Effect of Self-Enhancement Value Dimension Scores and Materialism Scores on Shopping Frequency; the Mediating Role of Materialism

Shopping Frequency						
Analysis Steps		Corrected R <sup>2</sup>	B	Standard Error	$\beta$	t
1	Age	0.12	-0.12	0.03	-0.20	-4.72***
	Gender		-2.60	0.48	-0.23	-5.37***
	Family Income		1.51	0.46	0.14	3.30***
2	Age	0.14	-0.10	0.03	-0.16	-3.58***
	Gender		-2.49	0.48	-0.22	-5.20***
	Family Income		1.23	0.46	0.12	2.69**
	Self-Enhancement		0.45	0.13	0.16	3.45***
3	Age	0.17	-0.90	0.03	-0.15	-3.40***
	Gender		-2.43	0.47	-0.22	-5.16***
	Family Income		1.13	0.45	0.11	2.50*
	Self-Enhancement		0.20	0.15	0.07	1.39
	Materialism		1.73	0.47	0.18	3.72***

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

criterion in order to examine the mediating role of materialism on the relationship between the PVQ value dimensions and shopping frequency. Since no significant correlation was detected between the dependent variable of Shopping Frequency, and the individual value dimension of openness to change from the PVQ, the Baron and Kenny (1986) criterion for being a mediator variable was not met, and regression analysis was not conducted on the data related to this value dimension.

In all Hierarchical Linear Mediated Regression Analyses in which shopping frequency was taken as a dependent variable, the variables of age, gender, and family income were added to the first step of the regression equation as control variables.

The mediating role of materialism in the relationship between shopping frequency and self-enhancement, one of the dimensional values, was examined in the PVQ. In the Hierarchical Linear Mediated Regression Analysis in which shopping frequency was taken as the dependent variable, the variables of age, gender, and family income were added to the first step of the regression equation as control variables. In the second step, the PVQ self-enhancement value dimension scores were added as an independent variable, and in the third step, materialism scores were added as a mediator variable. Table 4, presents the results of this analysis. It can be seen in Table 4 that the variables of age, gender and family income explain 12% of the shopping frequency variance at a significant level [ $F(3,481) = 23.86, p < 0.001$ ]. Self-enhancement value dimension scores can explain 2% of the variance

in the shopping frequency scores at a significant level when demographic variables are controlled [ $F(1,480) = 13.02, p < 0.001$ ]. Materialism which was added to the regression equation in the third step can explain 3% of the variance in shopping frequency scores [ $F(1,479) = 13.82, p < 0.001$ ]. When the beta values of the self-enhancement scores, the independent variable, are examined in all steps, it can be observed that the beta values of the self-enhancement score decreased from .16 to .07 when the mediator variable materialism scores are added and the correlation did not become more significant. Therefore, it can be claimed that materialism plays a mediating role in the relationship between the dimensional value of self-enhancement and shopping frequency. Thus, the hypothesis was confirmed.

Secondly, the mediating role of materialism in the relationship between shopping frequency and another dimensional value of the PVQ, self-transcendence, was examined. In the second Hierarchical Linear Mediated Regression Analysis in which shopping frequency was taken as a dependent variable, the control variables were added to the first step of the regression equation. In the second step, the PVQ self-transcendence dimensional value scores were added as an independent variable, and in the third step, the materialism scores were added as a mediator variable. As can be seen in Table 5, which presents the analysis results, when demographic variables are controlled, the PVQ self-transcendence dimensional value scores can explain 2% of the variance in the shopping frequency scores [ $F$



Table 5

*PDA Hierarchical Linear Mediated Regression Analysis Results on the Predictor Effect of Self-Enhancement Value Dimension Scores and Materialism Scores on Shopping Frequency; the Mediating Role of Materialism*

Shopping Frequency						
Analysis Steps		Corrected R <sup>2</sup>	B	Standard Error	$\beta$	t
1	Age	0.12	-0.12	0.03	-0.20	-4.72***
	Gender		-2.60	0.48	-0.23	-5.37***
	Family Income		1.51	0.46	0.14	3.30***
2	Age	0.14	-0.11	0.03	-0.18	-4.23***
	Gender		-2.61	0.48	-0.23	-5.45***
	Family Income		1.52	0.45	0.14	3.36***
	Self-Transcendence		-0.64	0.24	-0.11	-2.66**
3	Age	0.16	-0.09	0.03	-0.16	-3.69***
	Gender		-2.48	0.47	-0.22	-5.25***
	Family Income		1.24	0.45	0.12	2.75**
	Self-Transcendence		-0.24	0.26	-0.04	-0.94
	Materialism		0.10	0.03	0.19	4.20***

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

(1,480) = 7.08,  $p < 0.01$ ]. Materialism, which enters the regression equation in the third step as a mediator variable, is observed to explain 2% of the variance in the shopping frequency scores [ $F(1,479) = 17.62$ ,  $p < 0.001$ ]. When the beta values of the self-transcendence scores as an independent variable were examined, it was observed that the self-transcendence beta value decreased from -.11 to -.04 when the materialism scores were added and the significance disappeared. Therefore, it can be claimed that the hypothesis that materialism has a mediating role in the relationship between the dimensional value of self-transcendence and shopping frequency was confirmed.

Finally, the mediating role of materialism was examined in the relationship between shopping frequency and Conservation, which is another dimensional value in the PVQ. In the first step of Hierarchical Linear Regression Analysis in which shopping frequency was taken as the dependent variable, control variables were added to the regression analysis. PVQ Conservation value dimension scores were added as the independent variable in the second step; and materialism scores were added as the mediator variable in the third step. As can be seen in Table 6, which presents the analysis results, conservation value dimension scores can explain 1% of the variance

Table 6

*PDA Hierarchical Linear Mediated Regression Analysis Results on the Predictor Effect of Conservation Value Dimension Scores and Materialism Scores on Shopping Frequency; the Mediating Role of Materialism*

Shopping Frequency						
Analysis Steps		Corrected R <sup>2</sup>	B	Standard Error	$\beta$	t
1	Age	0.12	-0.12	0.03	-0.20	-4.72***
	Gender		-2.60	0.48	-0.23	-5.37***
	Family Income		1.51	0.46	0.14	3.30***
2	Age	0.13	-0.11	0.03	-0.19	-4.42***
	Gender		-2.60	0.48	-0.23	-5.41***
	Family Income		1.47	0.45	0.14	3.23***
	Conservation		-0.25	0.11	-0.10	-2.24*
3	Age	0.17	-0.09	0.03	-0.16	-3.60***
	Gender		-2.47	0.47	-0.22	-5.25***
	Family Income		1.19	0.45	0.11	2.65**
	Conservation		-0.20	0.11	-0.08	-1.84
	Materialism		0.11	0.02	0.20	4.73***

Not: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

in shopping frequency scores at a significant level when demographic variables are controlled [ $F(1,480) = 4.99, p < 0.05$ ]. It can be observed that materialism, which was added to the regression analysis as the mediator variable in the third step, can explain 4% of the variance in the shopping frequency scores at a significant level [ $F(1,479) = 22.33, p < 0.001$ ]. Examination of the conservation dimension beta values reveals that the beta values of the conservation dimension scores fall from -.10 to -.08 when materialism scores are involved and the significance disappears. Therefore, we can claim that the hypothesis that materialism has a mediating role in the relationship between shopping frequency and conservation value dimension is confirmed.

### Discussion

The main purpose of the present research is to examine the multiple relationships between the individual values of consumers, materialism, and shopping habits, and studying these relationships within the framework of the value-attitude-behavior model. Homer and Kahle's (1988) model, which suggests that values affect behaviors through attitudes, states that as a more "abstract" concept, values affect less abstract attitudes, and attitudes may affect behaviors. In other words, there is a hierarchy between value, attitude, and behavior, and attitudes mediate the relationship between values and behaviors. In the present research, the mediating role of materialist attitude in the relationship between individual values and shopping behavior was examined.

Consumers between the ages of 18-65 living in Turkey formed the study group of the research. Value ordering of the sample was as follows: three value types with the highest average scores respectively are universalism, self-direction, and benevolence, and three value types with the lowest average scores respectively are; power, tradition, and achievement. Schwartz and Bardi (2001) found a similar hierarchy in their research conducted on a sample of 13 different nations. Benevolence, self-direction, and universalism were considered as the most important values by almost every nation which participated in the research. Power, tradition, and stimulation were the values in the lower steps of the hierarchy. A similar hierarchy was found in the present research, which can be explained with the motivational substructure of the values. Some values have more orienting functions for the continuity of social life, and this causes the values to be ordered similarly inter-culturally. It is suggested

that the values of benevolence and universalism are required for the continuity of social relationships and for people to live together, and these values are reinforced during the socialization period of childhood. The value of self-direction motivates individuals to work productively. The values of freedom of thought, creativity, and self-direction enable individuals to find new methods that will provide a sense of well-being to the group members. Therefore, self-direction values may also be among the values that are reinforced (Schwartz & Bardi, 2001).

In accordance with the hypotheses of the research, individual values of the participants were studied within the framework of four value dimensions: self-transcendence, self-enhancement, openness to change and conservation (Schwartz et al., 2001). The concept of materialism is taken not as a value, but as an attitude towards consumption (Kilbourne et al., 2005). The first hypothesis of the research is "values are related to shopping frequency". According to the hypothesis; shopping frequency has positive correlations to the values of self-enhancement and openness to change, and negative correlations to the values of self-transcendence and conservation. According to the Partial Correlation Analysis results conducted by controlling the demographic variables such as age, gender, and family income, which were detected to be related to shopping frequency, correlations between shopping frequency and three of the four value dimensions were as predicted, and so the hypotheses were confirmed. No significant correlation was detected between the dimensional value of openness to change and shopping frequency. In other words, as self-transcendence and conservation are valued more, shopping frequency decreases. As self-enhancement is valued more, shopping frequency increases as well. These findings comply with the findings of Yaşın's (2007) research on the relationship between shopping styles and consumption values. Various studies on the relationship between consumption and values in the literature are observed to deal generally with the dimensions of self-transcendence and self-enhancement. Howard and Sheth (1969) stated that values featured in a culture are important in determining consumption values. Jayawardhena (2004) found that there is a direct, positive correlation between the values of self-direction, self-achievement and enjoyment, and attitudes towards online consumption; related attitudes affect online shopping behavior. This finding suggests that consumption behaviors have positive

correlations especially with individual-centered values. Similarly, the present research found positive correlations between shopping frequency and the dimensional value of self-enhancement, which involves the values of achievement, power and hedonism. Negative correlations between shopping frequency and self-transcendence, which involves the values of universalism and benevolence, and conservation, which involves the values of conformity, tradition, and security were also found. These findings can be considered as a result of motivational conflict between values.

According to Schwartz's values theory, the motivational processes behind values that are considered to be related to the needs of individuals are defined as the basic needs of human beings as biological organisms, needs for inter-personal interactions, and needs for the continuity of society. For instance, the values of "stimulation" and "hedonism" are related to biological needs as an organism, whereas "benevolence" is related to social interaction, and "conformity" is related to the demands of group life (Schwartz, 1996; Schwartz & Bilsky, 1987). The dimensional value of self-enhancement involves values that enable individuals to act in their own interests even ones that cause disadvantages for others, and the dimensional value of self-transcendence includes values about the well-being of humanity and nature (Schwartz, 1992, 1994). We can claim that value types may agree or conflict with each other because of their motivational resources and this conflict also occurs with its relationship to behavior. In this case, behaviors that are claimed to shape around the ego of the individuals such as consumption, having positive correlations with individual-centered values, and having negative correlations with values about social interaction reveal the motivational conflict between value dimensions and their relationship with behaviors once more.

Another hypothesis examined in the research was "materialism has a mediating role in the predictor effect of value dimensions on shopping behaviors". Within the scope of this hypothesis, predictive levels of materialism and values on shopping frequency, and whether materialism has a mediating role in the relationship between shopping frequency and each of the value dimensions were examined. Hierarchical Linear Mediated Regression Analysis conducted by controlling the demographic variables was able to be conducted for three value dimensions that were related to shopping frequency. The dimensional value of openness to change

could not be examined because it did not meet the criterion defined by Baron and Kenny (1986) for Hierarchical Linear Mediated Regression Analysis. According to the results of Hierarchical Linear Mediated Regression Analyses conducted for each value dimension separately in order to reveal the mediating role of materialism in the relationship between shopping frequency and the dimensional values of self-enhancement, self-transcendence and conservation, when materialism is involved, the significance of the correlation between shopping frequency and the values disappeared. These findings show that materialism has a mediating role in the relationships between shopping frequency and all three value dimensions. Concordantly, this hypothesis can claim to be confirmed for three of the four value dimensions. The findings show that materialism, namely attitudes towards consumption, is the real factor that provides the relationship between values and shopping behavior. As an attitude, materialism is observed to mediate the relationship between values and behavior.

There are many studies in the literature that found that values affect individual behaviors directly or indirectly (Beatty et al., 1991; Cai & Shannon, 2012; Milfont et al., 2010; Şener & Hazer, 2007; Tan, 2011; Thøgersen & Ölander, 2002). Other studies on the value-attitude-behavior relationship in the literature (Homer & Kahle, 1988; Jayawardhena, 2004; Tan, 2011) comply with the findings of the present research. Some studies suggest that there is a relationship between culture dimensions and consumer behaviors (Penpece, 2006). Other studies that test the value-attitude-behavior model in various cultures also confirm the model. Research on Chinese consumer values and consumption habits found that consumption is related to the values of self-enhancement and self-transcendence like other research conducted in western culture (Cai & Shannon, 2012). These studies support the view that there is a hierarchy between value, attitude, and behavior, and attitudes mediate the relationship between values and behaviors. According to this view, values do not affect behaviors directly; attitudes cause the relationship between behaviors and values.

No studies examining the multiple relationships between values, materialism, and shopping with causal aspects were conducted in Turkey. There are few studies examining the bilateral relations between these concepts. The present study is important in terms of being the first research studying the value-attitude-behavior model with these concepts.

The present research reveals the mediating role of materialism in the relationship between values and consumption. It did not, however, examine materialistic tendencies or the processes behind these. Research within this scope should examine materialism with its sub-dimensions more extensively, and examine the factors related to materialism. The cultural and individual factors that affect materialistic tendencies, socialization processes, and their effects on consumption could especially be revealed. It is considered that examination of the variables affecting materialistic tendencies within the framework of the value-attitude-behavior model can provide a more extensive perspective.

As a conclusion, the present study supports the view that values do not motivate behaviors directly, but they are upper-structures that affect attitudes and behaviors independently of situations and conditions (Schwartz, 1996). The present study can claim to provide a structure that is convenient for explaining how materialism plays a mediating role in the relationship between some value dimensions and shopping behavior and that the value-attitude-behavior model is related to these concepts.

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